

by calcining an intimate mixture of oxygen-containing transition metal compounds and an oxygen-containing lithium compound, which has been obtained by treating a solid powdered transition metal compound with a solution of the lithium compound and drying, wherein at least the  $M^1$  compound is used in the form of a powder with a specific surface area of at least  $10 \text{ m}^2/\text{g}$  (BET) and calcination is performed in a moving bed.

2. (Amended) A process according to Claim 1, wherein the transition metallate is milled and sieved after calcination and the finer fraction from sieving is recycled to the moving bed.
3. (Amended) A process according to Claim 1 wherein a mixed transition metal compound which contains at least some of the  $M^2$  compound is used in a solution of the lithium compound for impregnating the  $M^1$  compound.
4. (Amended) A process according to Claim 1 wherein the solution of lithium compound contains at least some of the  $M^2$  compound.
5. (Amended) A process according to Claim 1 wherein calcination is performed in a rotary kiln, in a fluidised bed or in a fall-shaft reactor (downer).
6. (Amended) A process according to Claim 1 wherein following calcination, milling is performed and, after milling, further calcination is performed in an oxygen-containing atmosphere.
7. (Amended) A process according to Claim 1 wherein  $\text{LiNO}_3$  is used as the lithium compound and  $\text{Ni}(\text{OH})_2$  is used as the  $M^1$  transition metal compound.
8. (Amended) A process according to Claim 7, wherein  $\text{NO}_2$  released during calcination is recovered as nitric acid and is reacted with  $\text{LiOH}$  to give  $\text{LiNO}_3$  which is used as the lithium compound.

9. (Amended) A process according to Claim 1 wherein the transition metal compound treated with the solution of a lithium compound is dried by spray drying or mixer granulation.
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